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ARTICLE

Birds from the Pirizal region, Pantanal of Poconé, Mato Grosso, Brazil

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ABSTRACT: Pantanal is the world largest inland wetland and is internationally renowned by its high species diversity, but low level of endemism. Extensive areas of the Pantanal have never been subject to adequate sampling, and we still have much to learn about the composition and distribution of the biota found in this threatened biogeographic province. In this paper we present the results of a long term inventory conducted in Pirizal region since 1999. We recorded 343 bird species, 54.8% of them documented with specimens. A significant Amazonian influence was observed in the composition of the bird community sampled. Only two threatened species were recorded: *Penelope ochrogaster* and *Anodorhynchus hyacinthinus*. Noteworthy records include *Ictinia mississippiensis*, *Attila phoenicurus*, *Empidonax alnorum*, *Myiothlypis leucophrys*, *Dolichonyx oryzivorus* and *Catharus fuscescens.*

KEY-WORDS: avifauna, inventory, Neotropical, wetland.

INTRODUCTION

Pantanal is the world largest inland wetland, covering about 160,000 km^2 of southwestern Brazil, eastern Bolivia and northeastern Paraguay, extending from 16° to 21°S and from 55° to 58'W (Junk *et al.* 2006, Mercante *et al.* 2011). The annual flood pulse of the Rio Paraguay dictates important ecological process in the entire floodplain (Junk *et al.* 1989), influencing the life cycle of their wildlife (Alho *et al.* 2000, Harris *et al.* 2005). Local small differences in the topography, and consequently in the hydrological regime, creates a complex mosaic of permanently flooded, seasonally flooded and non-flooded areas, creating high habitat heterogeneity (Junk *et al.* 1989, Nunes-da-Cunha & Junk 2001, Junk *et al.* 2006, Girard 2011). The high habitat heterogeneity results in a huge biodiversity, largely influenced by neighboring biogeographic provinces, namely the Cerrado, Chaco, Chiquitano Dry Forests, Amazonia and Atlantic Forest (Brown 1986, Nunes & Tomas 2004). Nevertheless, in spite of such high species richness, Pantanal lacks endemic birds (Tubelis & Tomas 2003).

The difficult access to many parts of the Pantanal, especially when it is flooded, associated with its harsh field conditions (*e.g.* maximum daily temperature frequently exceed 40°C, hordes of mosquitoes and ticks, flooded habitats), resulted in a small number of biological inventories and, consequently, this wetland is full of collecting gaps. The biodiversity of Pantanal is still poorly known, even for birds, which are generally acknowledged as the best-sampled group among vertebrates.

The most reliable checklist ever published for the Pantanal is that of Tubelis & Tomas (2003), which recorded 463 bird species for the wetland. Several subsequent studies recorded new species for the Pantanal (*e.g.* Vasconcelos *et al.* 2008, Antas & Palo-Jr. 2009, Girard 2011) and an updated checklist for the floodplain was recently published by Nunes (2011). Nevertheless, this updated checklist is careless, incorporating several questionable or erroneous records to the Pantanal (pers. obs.) and, therefore, it will not be considered further in this paper.

The necessity of additional and intensive biological inventories in the Pantanal has been emphasized by Brown (1986), who, in a classic paper about the local zoogeography, concluded that a better understanding of the Pantanal fauna would only emerge after decades of regular and detailed inventories. However, Pantanal is under eminent threat and this is the definitive moment for decision making (Neves 2009). Replacement of

the traditional low density extensive cattle ranching by intensive cattle raising, introduction of exotic grasses, deforestation, poaching and gold mining (and the resulting mercury contamination) are examples of growing anthropic activities in the region (Silva *et al.* 2001, Harris *et al.* 2006, Alho 2008, 2011). Even worse threatens are the economic/development projects that have been, or are being planned to be implemented and that will affect the flood cycle of the entire Pantanal, such as reservoirs for hydroelectric power plants in the catchment area and the extension of the Paraguay-Paraná waterway (Lourival *et al.* 1999, Silva *et al.* 2001, Alho 2008, Neves 2009, Alho 2011). Other potential sources of threat are the planned installation of industrial, metallurgical and gas-chemical plants in the Pantanal or in its catchment area (Neves 2009). Therefore, given the scarcity of basic information about the local biodiversity, as well as to the growing threats suffered by the Pantanal, this paper presents the results of a long term inventory conducted in the northern portion of this wetland.

METHODS

Study area

This study was conducted in the subregion known as Pantanal of Poconé, state of Mato Grosso, southwestern Brazil (Silva & Abdon 1998). Our fieldwork was conducted near to Pirizal (16°14'09''S; 56°22'50''W), a small district of the municipality of Nossa Senhora do Livramento that gives name to the whole region we sampled. The district of Pirizal lies in the border between the Pantanal and the Cerrado, in the transition zone between these two important Brazilian biogeographic provinces. Pirizal region has a low human density and is difficulty to access when the Pantanal is flooded. Consequently, local landscape is comparatively well preserved (Pinho & Nogueira 2003).

Fieldwork was based in the Fazenda Retiro Novo (16°22'01''S; 56°17'58''W), one of the best-studied sites from the ornithological point of view in the entire Pantanal (*e.g.* Pinho & Nogueira 2003, Pinho *et al.* 2006, 2009, in press, Pinho & Marini 2012, 2014, Bernardon *et al.* 2014). Our fieldwork also included frequent visits to nearby farms, including the Fazenda Aparecida (16°22'22''S; 56°19'26''W), Fazenda Aterrado (16°16'20''S; 56°20'59''W) and Fazenda Campo Alegre (16°20'45''S; 56°21'23''W). We also conducted limited fieldwork in the Rio Piraim, where we visited a locality known as Moquém (16°23'38''S; 56°15'51''W), and in a bamboo dominated forest patch near to Pirizal (16°13'52''S; 56°23'01''W). The study area is about 30,000 ha and all localities sampled are inside the Pantanal floodplain, in the municipalities of Nossa Senhora do Livramento and Poconé. A map of the study area, which is located between the right bank of Rio Piraim and the left bank of Rio Bento Gomes, can be seen in Pinho *et al.* (2006).

Local climate is Aw according to the Köppen's climate classification system, what means a tropical climate with dry winter (Alvares *et al.* 2014). Two marked seasons can be identified, a dry one from May to September, and a wet one from October to April (Pinho & Marini 2012). Mean annual rainfall from 1999 to 2002 was 1159 mm, mean annual temperature was 25.8°C, mean annual low temperature was 20.9°C and mean annual maximum temperature was 32.5°C (Pinho & Marini 2012).

Floods in the northern Pantanal are rather shallow when compared with floods in its southern portion, reaching up to 2 m depth, but presenting strong interannual variation (Nunes-da-Cunha & Junk 2004, Girard 2011). The flood cycle can be simplistically divided into three distinct periods (Pinho & Marini 2012): 1) flooded (January–April), run-off (May–August) and low water (September–December). Note that there is a time lag between the onset of rains and flooding.

Pantanal is very plain, and elevations of the sampled localities are ~120–125 m a.s.l., with marked changes in vegetation observed within very short distances due to topography and, consequently, to the degree of flooding. Local vegetation is a complex mosaic of distinct phytophysiognomies, including deciduous, semideciduous and evergreen forests, open savannas and natural grasslands, all of them seasonally flooded, with the only exception of the deciduous/semideciduous forests. Permanent marshes, riparian forests, and dense bamboo dominated forest patches are also found.

Four main forest types are found in the region, and are briefly described here. Cordilheira are semi-deciduous to deciduous forests with high floristic affinities with the Cerrado; located in the higher areas, this forest type never floods. Cambarazal is an evergreen forest dominated by *Vochysia divergens* (Vochysiaceae), seasonally flooded. Landi is a low and dense forest located in the lower areas, seasonally flooded. Carvoal is an open deciduous forest dominated by *Callistene fasciculata* (Vochysiaceae) and that never floods. Further descriptions of these four forest types can be found in Pinho & Marini (2012). Detailed information about the local vegetation can also be found elsewhere (Nascimento & Nunes-da-Cunha 1989, Nunes-da-Cunha & Junk 1999, 2001, Nunes-da-Cunha *et al.* 2007).

Sampling

We conducted standard samplings in the four main forest types found in the study area: cordilheira, cambarazal, landi (three replicates in each) and carvoal (two replicates). Mean ± SD size of each forest patch are as follow: cordilheira (12.1 ± 0.2 ha), cambarazal (28.8 ± 2.7 ha), landi (14.9 ± 3.0 ha) and carvoal (27.9 ± 3.8 ha).

Birds from the 11 forest patches described above were sampled through point counts and mist-netting from September 1999 to August 2001, as detailed in Pinho & Marini (2012). Additional sampling in the study area were conducted non-systematically and with multiple purposes until October 2015, especially during studies focusing on the breeding biology (*e.g.* Rubio & Pinho 2008, Evangelista *et al.* 2010, Nóbrega & Pinho 2010, Bernardon *et al.* 2014, Pinho & Marini 2014), diet (Silva & Rúbio 2007, Gaiotti & Pinho 2013), and the spatial patterns of diversity of birds (Signor & Pinho 2011). Therefore, we sampled all habitat types found in the study area to some extent in addition to the standard sampling, but the exact sampling effort conducted is difficult to determine.

We tried as much as possible to document the records obtained with specimens. Birds were collected with fireguns, airguns or mist nets, prepared as study skins and deposited in the ornithological collections of the Universidade Federal de Mato Grosso, Cuiabá (UFMT), Universidade Federal de Minas Gerais, Belo Horizonte (DZUFMG), and Universidade Federal de Viçosa, Florestal (CAF).

Taxonomy and systematic follow the 4th edition of Howard and Moore Checklist (Dickinson & Remsen-Jr. 2013, Dickinson & Christidis 2014). Subspecies were indicated only when indispensable, especially in those circumstances where the taxonomic treatment adopted here differs from those adopted by the Brazilian Ornithological Records Committee (http://www.cbro.org.br). We highlighted those species considered threatened at national (MMA 2014) and global levels (BirdLife International 2015).

RESULTS

We recorded 343 bird species distributed in 63 families, with 178 (51.9%) non-passerine species and 165 (48.1%) passerine species (Appendix I). The most species-rich family was Tyrannidae (40 species), followed by Thraupidae (27), Accipitridae (17) and Trochilidae (15). We collected 510 specimens, 365 of which are housed in UFMT, 134 in DZUFMG and 11 in CAF. We personally checked all specimens housed in the above cited institutions on February and September 2015, but found that some of the specimens listed in the accession book of the UFMT are missing, as indicated in the Appendix I. Specimens collected belong to 188 species, what corresponds to 54.8% of the bird fauna found in Pirizal.

We recorded 22 bird species not included in the list of bird species of the Pantanal compiled by Tubelis & Tomas (2003), namely: *Patagioenas speciosa*, *Ictinia mississippiensis*, *Strix huhula*, *Chelidoptera tenebrosa*, *Celeus flavus*, *Primolius maracana*, *Neopelma pallescens*, *Xenopsaris albinucha*, *Pachyramphus validus*, *P. marginatus*, *Platyrinchus mystaceus*, *Myiornis ecaudatus*, *Elaenia parvirostris*, *E. albiceps*, *Capsiempis flaveola*, *Attila phoenicurus*, *Empidonax alnorum*, *Myiothlypis leucophrys*, *Pipraeidea melanonota*, *Catharus fuscescens*, *Turdus fumigatus*, and *T. albicollis*.

The bird fauna found in Pirizal is largely composed by wide ranging species, the majority of them widely distributed across the open formation of central South America. Fifteen taxa are typical to the Amazonia (Silva 1996): *Eurypyga helias*, *Coccycua minuta*, *Zebrilus undulatus*, *Strix h. huhula*, *Trogon melanurus*, *Celeus f. flavus, Tityra semifasciata*, *Myiornis ecaudatus*, *Hemitriccus striaticollis*, *Attila bolivianus*, *Hypocnemoides maculicauda*, *Pyriglena leuconota*, *Hylophilus pectoralis*, *Cacicus cela* and *Turdus fumigatus*. None of the species recorded is typical to the Atlantic Forest (Silva 1996).

Five species are endemic to the Cerrado (Silva & Bates 2002): *Penelope ochrogaster*, *Antilophia galeata*, *Herpsilochmus longirostris*, *Myiothlypis leucophrys* and *Saltatricula atricollis.* Some species typical to the Chaco, such as *Ortalis canicollis*, *Celeus lugubris*, and *Xiphocolaptes major*, are widespread in the Pantanal and, therefore, cannot be considered as endemic to the Chaco.

Only two species recorded are considered threatened to some extent. *Penelope ochrogaster* is considered "vulnerable" at national and global levels, while *Anodorhynchus hyacinthinus* is considered "vulnerable" at global level. Noteworthy records are discussed below.

DISCUSSION

Species richness

The number of species recorded by us is one of the largest ever recorded in a single locality in the Pantanal, being exceeded only by those recorded in RPPN SESC Pantanal, municipality of Barão de Melgaço, where 371 species have been recorded during a long term inventory that is taking place since 1998 (Antas & Palo-Jr. 2009, Ubaid & Antas 2013). It is important to highlight that the area of the RPPN SESC Pantanal (106,782 ha) is much larger than the area sampled by us. Short-term inventories conducted in other sites in Pantanal revealed considerably lower species richness. For example, an inventory conducted in the Fazenda Nhumirim (4310 ha) revealed 272 species (Nunes *et al.* 2005). A more detailed inventory conducted in the Fazenda Santa Emília (2700 ha) revealed 273 species (Pivatto *et al.* 2008).

The high species richness recorded in Pirizal, as well as those recorded in RPPN SESC Pantanal, is probably usual for a large area located in the Pantanal border, being the result of the large sampling effort conducted in these two areas. This large sampling effort allowed us

to detect regionally rare (*e.g. Ciccaba huhula* and *Zebrilus undulatus*), vagrant (*e.g. Pipraeidea melanonota*) and transient (*e.g. Attila phoenicurus*, *Empidonax alnorum* and *Dolichonyx oryzivorus*) species that demonstrates the importance of long-term inventories.

Records of new species

Although this paper added almost two dozen species to the list compiled by Tubelis & Tomas (2003), we must stress that this list is outdated and that several of these species have already been recorded in the Pantanal by previous authors (*e.g.* Vasconcelos *et al.* 2008, Antas & Palo-Jr. 2009, Ubaid & Antas 2013). The large number of species recorded by us for the first time in the Pantanal is probably attributable to 1) the scarcity of previous bird inventories in the floodplain; 2) the large sampling effort conducted here; and 3) the short distance of the Pirizal region to the Pantanal border and the consequent biogeographic influence from the adjacent Cerrado. We suspect that the proximity of the study area to the Cerrado enables that small populations of species apparently intolerant to the seasonal flooding (*e.g. Suiriri suiriri affinis*, *Saltatriculla atricollis*) are maintained in the Pirizal region due to the constant arrival of dispersers from the adjacent Cerrado.

Pantanal is remarkable not only by its high bird species richness. The extreme rarity or even the lack of records of several very common and omnipresent species in the adjacent Cerrado (Lopes *et al.* 2009, pers. obs.) is also remarkable. Some examples are *Forpus xanthopterygius*, *Pygochelidon cyanoleuca*, *Tangara cayana*, *Dacnis cayana* and *Sporophila nigricollis*. Reasons for those absences are unknown, but they probably have something to do with the flooding regime of the Pantanal.

Noteworthy records

We included in the following section those species of conservationist and biogeographic interest.

Penelope spp. – *Penelope ochrogaster* is by far the most common species of guan in the Pirizal region, being frequently found in the landi, cambará and cordilheira forests. When the Pantanal is flooded, this species is most frequently found in cordilheira forests. *Penelope superciliaris* is a rare species in the region, known from very few records.

Ictinia mississippiensis – there are only five records of this species to the study area, generally of three or fewer birds. One remarkable exception was a flock of more than one hundred birds seen and photographed on the first week of October 2015 perched in a cordilheira forest, where they have apparently overnighted. Records of the species for the state of Mato Grosso are summarized by Lopes *et al.* (2009).

Anodorhynchus hyacinthinus – local population of this macaw increased considerably during the last two decades. It was of ~14 birds on 1996/1997, reaching ~50 birds on 2014/2015. Its nests are invariably built on cavities excavated in the trunk of *Sterculia apetala*, but it occasionally uses cavities on *Enterolobium contorsiliquum.*

Pachyramphus marginatus – a rare species in cambará forests, the tallest and most humid forest found in the study area. The congeneric *P. polychopterus* is much more common in the study area, being found in drier savannas, woodlands and forest borders. The northern border of the Pantanal represents the southern range limit for the species (Ridgely & Tudor 2009), that has two subspecies, the nominotypical one, which is restricted to the eastern Brazilian Atlantic Forest, and *P. m. nanus*, which is restricted to the Amazonia (Dickinson & Christidis 2014).

Myiornis ecaudatus – a fairly common species in cambará forests. This is a predominantly Amazonian species (Silva 1996), which has the northern Pantanal border as its southern range limit (Ridgely & Tudor 2009).

Attila phoenicurus – a transient species in the Pantanal, which breeds in the southeastern Brazilian Atlantic Forest and winters in the Amazonia (Chesser 1994, Ridgely & Tudor 1994). Two birds were mist-netted on 26 March 1999 in a landi forest. Another bird was mist-netted on October 2001. The species has also been mist-netted in the SESC Pantanal on 21 March 2011 (Ubaid & Antas 2013).

Empidonax alnorum – three species of the genus *Empidonax* are found in South America, all of them uncommon to fairly common boreal migrants (Ridgely & Tudor 2009). Identification in the hand, without the help of vocalizations, is difficult but feasible with considerable effort (Pyle 1997). A single unsexed specimen (UFMT 0644) collected on an uncertain date of 2000 is the only record of the species for the study area. Identification of this specimen was based on a careful inspection of the specimen, whose body measurements and wing morphology perfectly coincided with values presented by Pyle (1997) for *E. alnorum*, including "Formula I" and "Formula R". Unfortunately, the specimen is poorly prepared and labelled, and we have no additional information to provide about this important record.

Thamnophilus pelzelni – although Tubelis & Tomas (2003) considered all members of the *T. punctatus* complex recorded in the Pantanal as belonging to *T. sticturus*, birds recorded in the Pirizal region are referable to *T. pelzelni,* the species that is widely distributed in the Cerrado. *Thamnophilus sticturus* also occurs in the Pantanal, but is restricted to its western portion, in areas under influence of Chiquitano Dry Forests (Vasconcelos & Hoffmann 2006).

Myiothlypis leucophrys – a single specimen (UFMT 0236) collected in the poorly sampled seasonally flooded riparian forest of Rio Piraim on September 2002 is the only record of the species for the study area. This specimen

represents the first record of the species for the Pantanal.

Dolichonyx oryzivorus – a single bird was mist-netted in a seasonally flooded grassland on 25 May 2001. This bird was banded and released. This is a Neartic long-distance migrant, which breeds in North America and winters in wet grasslands from northeastern Bolivia to northern Argentina, including the Pantanal (Ridgely & Tudor 2009), from where few records are available (Tubelis & Tomas 2003). The record presented here is an abnormally late one, because return migration starts in March to early April, with breeding season in North America from May to July (Fraga 2011). Extreme dates for the species in Paraguay are 20 September and 24 April (Guyra Paraguay 2005).

Catharus fuscescens – a single bird (UFMT 0201) collected on 6 November 2011 is the only record for the study area. Additional specimens in the UFMT are a bird collected in the municipality of Juína, Mato Grosso, on 24 November 2006 and seven other specimens collected in the municipalities of Comodoro, state of Mato Grosso, and Chupinguaia, state of Rondônia, all of them on the second half of January 2011. All records of the species listed here are well in accordance with what is known about the winter range of the species (Heckscher *et al.* 2011).

Turdus fumigatus – we referred the single specimen of the *T. fumigatus/hauxwelli* complex obtained in a cambarazal as belonging to this species after comparing it with unquestionable specimens of *T. fumigatus* obtained in Belém region, northern Brazil. This species has also been recorded in the RPPN SESC Pantanal by Antas & Palo-Jr. (2009), but the specimen collected in this site by V. Cavarzere and F. Ubaid on 19 October 2011 (MZUSP 91872) closely approaches *T. hauxwelli* from the morphological point of view. It is well known that the taxonomy of the *T. fumigatus/hauxwelli* complex is exceedingly difficult and needs further investigation, with some authors suggesting that these two species hybridize in Mato Grosso (Naumburg 1930, Hellmayr 1934, Gyldenstolpe 1945, Snow 1985). Nevertheless, this hypothesis needs to be confirmed, because the morphological variation observed in this complex was difficult to appreciate at that time due to the existence of an undescribed species, the cryptic *T. sanchezorum* (O'Neill *et al.* 2011). Taxonomy of this complex needs further investigation.

Turdus albicollis – the single bird collected in the study area (UFMT 3334) belongs to the subspecies found in southwestern Brazil, Paraguay and Argentina, *T. a. paraguayensis* (Naumburg 1930, Hellmayr 1934). This subspecies seems to be very rare in the state.

Some species found in the study area are locally tied to bamboo patches, even though they are not considered as bamboo specialists (Parker-III *et al.* 1996). These species are *Formicivora grisea*, *F. melanogaster*, *Synallaxis scutata*, *Myiobius barbatus* and *Platyrinchus mystaceus*. Some true bamboo specialist birds were collected by us in the Pantanal of Cáceres, including *Drymophila devillei* and *Amaurospiza moesta* (Lopes *et al.* 2011). Although bamboo patches are well known as an important contribution for Neotropical birds diversity (Cockle & Areta 2013), no study to date has focused on the importance of this microhabitat in the Pantanal region.

Identification mistakes and corrections

We have mistakenly included in previous papers and unpublished thesis the records of some species that does not occur in the Pirizal region. We identified these mistakes after a complete revision of the specimens housed in the ornithological collection of UFMT that took place on February and September 2015. These mistakes originated from mislabeled specimens or from confusion with similar looking species that occur in the region. We are now taking the opportunity to correct them.

Dendrocygna bicolor – recorded by Pinho (2005), it is a typographical error that led the species to be mistakenly included in the species list.

Pipile cujubi – recorded by Pinho (2005), Pinho & Marini 2012, Pinho *et al.* (in press), it is a nomenclatural mistake with the congeneric *P. cumanensis grayi*, which is the species found in the study area.

Geotrygon montana – recorded by Pinho (2005), it is an identification mistake of a dove observed in flight, maybe a species of *Leptotila*.

Phaethornis ruber – recorded by Pinho (2005), Signor & Pinho (2010, 2011), Pinho & Marini (2012) and Pinho *et al.* (in press). Records of the species for the Pirizal originated from misidentified specimens of *P. nattereri.* Furthermore, it is highly unlikely that three small species of hermits co-occur in a same site.

Hylocharis cyanus – recorded by Pinho (2005), Pinho & Marini (2012) and Pinho *et al.* (in press), it is an identification mistake of the male *Chlorostilbon lucidus*.

Glaucidium minutissimum – recorded by Pinho (2005) and Pinho & Marini (2012), it is double mistake. First, it is a nomenclatural confusion with the Amazonian taxon *G. hardy*, which is the taxon found in Mato Grosso. Second, it is a misidentification of specimens of *G. brasilianum* with the crown predominantly dotted, not streaked whitish, a diagnostic character that appeared in some old field guides (Dunning 1987). We never heard the voice of *G. hardy* in the study area, and given that *Glaucidium* is a genus with high chromatic variability and lack of good morphological diagnostic characters (Vielliard 1989, König & Weick 2008), we preferred to keep in our list only *G. brasilianum*, a species heard daily in the study area.

Trogon surrucura – recorded by Pinho (2005), it is a typographical error that led the species to be mistakenly included in the species list.

Nystalus maculatus striatipectus – recorded by Pinho (2005), who considered this taxon as an independent species following Silva (1991). The taxon found in Pirizal is *N. m. maculatus*, which is widely distributed throughout the Cerrado and the Caatinga. Tubelis & Tomas (2003) also inadvertently considered the taxon *striatipectus* as the only one of the complex to occur in the Pantanal, but *striatipectus* is restricted to the southwestern border of the Pantanal (Silva 1991).

Celeus flavescens – recorded by Pinho (2005) and Pinho *et al.* (in press), it is a misidentification of the morphologically variable *C. lugubris.*

Neopelma sulphureiventer – recorded by Pinho (2005), Pinho & Marini (2012) and Pinho *et al.* (in press), it is a misidentification of the congeneric *N. pallescens.*

Platyrinchus platyrhynchos – There is a specimen (UFMT 0653) collected on uncertain date on 2003 and labelled as being obtained in the study area. This specimen is much probably mislabeled and we believe that it was obtained somewhere in the northern portion of Mato Grosso.

Elaenia cristata – recorded by Pinho (2005), Signor & Pinho (2010, 2011), Pinho & Marini (2012) and Pinho *et al.* (in press). Members of the genus *Elaenia* are very difficult to identify by morphological features, and some species cannot be identified in the field, even by experienced observers. We adopted here a very conservative approach, which was to include in our list only those species documented with specimens or well known to occur in the Pantanal and easily identifiable by voice. We adopted this approach after reviewing all members of the genus housed in UFMT and finding several misidentified specimens. There are records of this species in SESC Pantanal (Antas & Palo-Jr. 2009).

Elaenia obscura – recorded by Pinho (2005), Pinho & Marini (2012) and Pinho *et al.* (in press). There is no confident record of this species for the state of Mato Grosso (Boute & Carlos 2007, Ridgely & Tudor 2009). See also above for *E. cristata*.

Elaenia mesoleuca – recorded by Pinho (2005), Pinho & Marini (2012) and Pinho *et al.* (in press). There is no confident record of this species for the state of Mato Grosso (Boute & Carlos 2007, Ridgely & Tudor 2009). See above for *E. cristata.*

Suiriri islerorum –recorded by Signor & Pinho (2010, 2011). It is a misidentification of *Suiriri suiriri affinis* (see figure 3H of Signor & Pinho 2010). Note that the nomenclature of the genus *Suiriri* adopted by Dickinson & Christidis (2014) differs from that proposed by Kirwan *et al.* (2014).

Myiozetetes similis – recorded by Pinho (2005), Pinho & Marini (2012), Signor & Pinho (2011) and Pinho *et al.* (in press). After checking specimens in the UFMT collection, we are not sure about the occurrence of the species in the study area, because it has been frequently misidentified with the similar looking *M. cayanensis*, which is very common in the region. Although voices of these species are quite different, we suspect that some observed or mist-netted specimens of *M. cayanensis* have been misidentified as *M. similis*. The ornithological collection of UFMT houses no specimen of *M. similis,* but there are records of the species, which seems to be rare in Mato Grosso, for SESC Pantanal (Antas & Palo-Jr. 2009).

Sporophila bouvronides – recorded by Pinho (2005), it is a typographical error for *S. bouvreuil*.

Arremon taciturnus – recorded by Pinho (2005), Pinho & Marini (2012) and Pinho *et al.* (in press), it is a nomenclatural confusion with *A. flavirostris.*

CONCLUSION

In this study we demonstrated that the Pirizal region harbor a huge species diversity, especially if considering that this is a predominantly non-forested site, which requires conservation efforts. We concluded that long-term inventories can result in the record of several species not previously known to occur in a comparatively well sampled region, such as the northern portion of the Pantanal (Tubelis & Tomas 2003). Given that bird inventories in the Pantanal are mostly restricted to its border or near to large cities and main roads, further inventories are still necessary on extensive regions of this wetland, especially on its central, western and northwestern portions. These regions are far from roads and big cities and, consequently, are very difficult to access, especially when the Pantanal is flooded. Without serious sampling efforts in these regions, our knowledge about the Pantanal bird fauna and its distribution will keep on far from adequate. Long-term inventories are also a great opportunity for checking our field observations and the identification of collected specimens, what can result in the correction of some identification errors. Unfortunately, this is infrequently done in the literature, resulting in the perpetuation of errors (Willis 2003). We finally would like to highlight the necessity of a complete update to the list of bird species of the Pantanal upland, incorporating not only the new records obtained in this floodplain, but also checking the identification and validity of all records available.

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REFERENCES

Alho, C. J. R. 2008. Biodiversity of the Pantanal: response to seasonal flooding regime and to environmental degradation. *Brazilian Journal of Biology*, 68: 957–966.

Alho, C. J. R. 2011. Biodiversity of the Pantanal: its magnitude, human occupation, environmental threats and challenges for conservation. *Brazilian Journal of Biology*, 71: 229–232.

Alho, C. J. R.; Strüssmann, C. & Vasconcellos, L. A. S. 2000. Indicadores da magnitude da diversidade e abundância de vertebrados silvestres do Pantanal num mosaico de habitats sazonais, p. 54. *In*: Dantas, M.; Resende, E. K. & Comastri-Filho, J. A. (eds.). *Anais do III Simpósio sobre Recursos Naturais e Sócio-econômicos do Pantanal*. Corumbá: EMBRAPA.

Alvares, C. A.; Stape, J. L.; Sentelhas, P. C.; Gonçalves, J. L. M. & Sparovek, G. 2014. Köppen's climate classification map for Brazil. *Meteorologische Zeitschrift*, 22: 711–728.

Antas, P. T. Z. & Palo-Jr., A. 2009. *Pantanal - guia de aves: espécies da Reserva Particular do Patrimônio Natural do SESC Pantanal, 2nd edn.* Rio de Janeiro: SESC.

Bernardon, B.; Nóbrega, P. F. A. & Pinho, J. B. 2014. Reproductive biology and nest-site selection of the Mato Grosso Antbird *Cercomacra melanaria* in the Brazilian Pantanal. *Revista Brasileira de Ornitologia*, 22: 270–277.

BirdLife International. 2015. *BirdLife's online world bird database: the site for bird conservation*. http://www.birdlife.org (access on 15 Nov 2015).

Boute, P. & Carlos, B. 2007. *Preliminary bird list of the state of Mato Grosso*. Cuiabá: Carlini & Caniato Editorial.

Brown-Jr., K. B. 1986. Zoogeografia da região do pantanal mato-grossense, p. 137–178. *In*: Boock, A. (ed.). *Anais do I Simpósio sobre Recursos Naturais e Sócio-Econômicos do Pantanal*. Brasília: EMBRAPA.

Chesser, R. T. 1994. Migration in South America: an overview of the austral system. *Bird Conservation International*, 4: 91–107.

Cockle, K. L. & Areta, J. I. 2013. Specialization on bamboo by Neotropical birds. *Condor*, 115: 217–220.

Dickinson, E. C. & Christidis, L. 2014. *The Howard and Moore complete checklist of the birds of the World, 4th edn., v. 2, passerines*. Eastbourne: Aves Press.

Dickinson, E. C. & Remsen-Jr., J. V. 2013. *The Howard and Moore complete checklist of the birds of the World, 4th edn., v. 1, non-passerines*. Eastbourne: Aves Press.

Dunning, J. S. 1987. *South American birds: a photographic aid to identification*. Newtown Square: Harrowood Books.

Evangelista, M. M.; Pinho, J. B. & Chupel, T. F. 2010. Descrição do ninho e dos ovos de *Zebrilus undulatus* (Gmelin, 1789) (Ciconiiformes: Ardeidae) na região do Pantanal de Poconé, Mato Grosso, Brasil. *Revista Brasileira de Ornitologia*, 18: 121–123.

Fraga, R. M. 2011. Family Icteridae (New World blackbirds), p. 684–810. *In*: del Hoyo, J.; Elliott, A. & Christie, D. (eds.). *Handbook of the birds of the world, v. 16 (tanagers to New World blackbirds)*. Barcelona: Lynx Edicions.

Gaiotti, M. G. & Pinho, J. B. 2013. Diet of the Fuscous Flycatcher *Cnemotriccus fuscatus* (Wied, 1831) - Aves, Tyrannidae - in three habitats of the northern Pantanal, Mato Grosso, Brazil. *Brazilian Journal of Biology*, 73: 841–845.

Girard, P. 2011. Hydrology of surface and ground waters in the Pantanal floodplains, p. 103–126. *In*: Junk, W. J.; Silva, C. J.; Nunes-da-Cunha, C. & Wantzen, K. M. (eds.). *The Pantanal: ecology, biodiversity and sustainable management of a large Neotropical seasonal wetland*. Sofia: Pensoft.

Guyra Paraguay. 2005. *Atlas de las aves de Paraguay*. Asunción: Guyra Paraguay.

Gyldenstolpe, N. 1945. The bird fauna of Rio Juruá in western Brazil. *Kungliga Svenska Vetenskapsakademiens Handlingar*, 22: 1–338.

Harris, M. B.; Arcângelo, C.; Pinto, E. C. T.; Camargo, G.; Ramos-Neto, M. B. & Silva, S. M. 2006. Estimativa da perda de cobertura vegetal original na Bacia do Alto Paraguai e Pantanal brasileiro: ameaças e perspectivas. *Natureza & Conservação*, 4: 50–66.

Harris, M. B.; Tomas, W.; Mourão, G.; Silva, C. J.; Guimarães, E.; Sonoda, F. & Fachim, E. 2005. Safeguarding the Pantanal wetlands: threats and conservation initiatives. *Conservation Biology*, 19: 714–720.

Heckscher, C. M.; Taylor, S. M.; Fox, J. W. & Afanasyev, V. 2011. Veery (*Catharus fuscescens*) wintering locations, migratory connectivity, and a revision of its winter range using geolocator technology. *Auk*, 128: 531–542.

Hellmayr, C. E. 1934. Catalogue of birds of the Americas and the adjacent islands in Field Museum of Natural History, part VII, Corvidae, Paridae, Sittidae, Certhiiidae, Chamaeidae, Cinclidae, Troglodytidae, Prunellidae, Mimidae, Turdidae, Zeledoniidae, Sylviidae. *Field Museum of Natural History Publications, Zoological Series*, 13: 1–531.

Junk, W. J.; Bayley, P. B. & Sparks, R. E. 1989. The flood pulse concept in river-floodplain systems. *Canadian Special Publication of Fisheries and Aquatic Science*, 106: 110–127.

Junk, W. J.; Nunes-da-Cunha, C.; Wantzen, K. M.; Petermann, P.; Strüssmann, C.; Marques, M. I. & Adis, J. 2006. Biodiversity and its conservation in the Pantanal of Mato Grosso, Brazil. *Aquatic Sciences*, 68: 278–309.

Kirwan, G. M.; Steinheimer, F. D.; Raposo, M. A. & Zimmer, K. J. 2014. Nomenclatural corrections, neotype designation and new subspecies description in the genus *Suiriri* (Aves: Passeriformes: Tyrannidae). *Zootaxa*, 3784: 224–240.

König, C. & Weick, F. 2008. *Owls of the world, 2nd edn.* New Haven: Yale University Press.

Lopes, L. E.; Pinho, J. B. & Benfica, C. E. R. T. 2011. Seasonal distribution and range of the Blackish-blue Seedeater *Amaurospiza moesta*, a bamboo-associated bird. *Wilson Journal of Ornithology*, 123: 797–802.

Lopes, L. E.; Pinho, J. B.; Bernardon, B.; Oliveira, F. F.; Bernardon, G.; Ferreira, L. P.; Vasconcelos, M. F.; Maldonado-Coelho, M.; Nóbrega, P. F. A. & Rubio, T. C. 2009. Aves da Chapada dos Guimarães, Mato Grosso, Brasil: uma síntese histórica do conhecimento. *Papéis Avulsos de Zoologia*, 49: 9–47.

Lourival, R.; Silva, C. J.; Calheiros, D. F.; Albuquerque, L. B.; Bezerra, M. A. O.; Boock, A.; Boulhosa, R. L. P.; Campos, Z.; Catella, A. C.; Damasceno-Jr., G. A.; Hardoim, E. L.; Hamilton, S. K.; Machado, F. A.; Mourão, G.; Nascimento, F. L.; Nogueira, F. M. B.; Oliveira, M. D.; Pott, A.; Silva, M. C.; Silva, V. P.; Strüssmann, C.; Takeda, A. M. & Tomas, W. M. 1999. Impactos da Hidrovia Paraná-Paraguai na biodiversidade Pantaneira, p. 517–535. *In*: Dantas, M.; Catto, J. B. & Resende, E. K. (eds.). *Simpósio sobre Recursos Naturais e Sócio-Econômicos do Pantanal: Manejo e Conservação*. Corumbá: EMBRAPA.

Mercante, M. A.; Rodrigues, S. C. & Ross, J. L. S. 2011.

Geomorphology and habitat diversity in the Pantanal. *Brazilian Journal of Biology*, 71: 233–240.

MMA (Ministério do Meio Ambiente). 2014. Portaria No. 444, de 17 de dezembro de 2014. *Lista nacional oficial de espécies da fauna ameaçadas de extinção*. Diário Oficial da União - Seção 1, 18 December 2014, p. 121–126.

Nascimento, M. T. & Nunes-da-Cunha, C. 1989. Estrutura e composição florística de um cambarazal no Pantanal de Poconé - MT. *Acta Botânica Brasilica*, 3: 3–23.

Naumburg, E. M. B. 1930. The birds of Mato Grosso, Brazil: a report on the birds secured by the Roosevelt-Rondon expedition. *Bulletin of the American Museum of Natural History*, 60: 1–432.

Neves, A. C. O. 2009. Conservation of the Pantanal wetlands: the definitive moment for decision making. *Ambio*, 38: 127–128.

Nóbrega, P. F. A. & Pinho, J. B. 2010. Biologia reprodutiva e uso de habitat por *Cantorchilus leucotis* (Lafresnaye, 1845) (Aves, Troglodytidae) no Pantanal, Mato Grosso, Brasil. *Papéis Avulsos de Zoologia*, 50: 511–516.

Nunes, A. P. 2011. Quantas espécies de aves ocorrem no Pantanal brasileiro? *Atualidades Ornitológicas*, 160: 45–54.

Nunes, A. P. & Tomas, W. M. 2004. Análise preliminar das relações biogeográficas da avifauna do Pantanal com biomas adjacentes. *IV Simpósio sobre Recursos Naturais e Sócio-econômicos do Pantanal*. Corumbá: Embrapa Pantanal.

Nunes, A. P.; Tomas, W. M. & Ticianeli, F. A. T. 2005. *Aves da Fazenda Nhumirim, Pantanal da Nhecolândia, MS*. Corumbá: Embrapa.

Nunes-da-Cunha, C. & Junk, W. J. 1999. Composição florística de capões e cordilheiras: localização das espécies lenhosa quanto ao gradiente de inundação do Pantanal de Poconé, MT - Brasil, p. 387–405. *Anais do II Simpósio Sobre Recursos Naturais e Socioeconômicos do Pantanal*. Corumbá: Embrapa/Universidade Federal do Mato Grosso do Sul.

Nunes-da-Cunha, C. & Junk, W. J. 2001. Distribution of woody plant communities along the flood gradient in the Pantanal of Poconé, Mato Grosso, Brazil. *International Journal of Ecology and Environmental Science*, 27: 63–70.

Nunes-da-Cunha, C. & Junk, W. J. 2004. Year-to-year changes in water level drive the invasion of *Vochysia divergens* in Pantanal grasslands. *Applied Vegetation Science*, 7: 103–110.

Nunes-da-Cunha, C.; Junk, W. J. & Leitão-Filho, H. F. 2007. Woody vegetation in the Pantanal of Mato Grosso, Brazil: a preliminary typology. *Amazoniana*, 19: 159–184.

O'Neill, J.; Lane, D. F. & Naka, L. N. 2011. A cryptic new species of thrush (Turdidae: *Turdus*) from western Amazonia. *Condor*, 113: 869–880.

Parker-III, T. A.; Stotz, D. F. & Fitzpatrick, J. W. 1996. Ecological and distributional databases, p. 113–436. *In*: Stotz, D. F.; Fitzpatrick, J. W.; Parker-III, T. A. & Moskovits, D. K. (eds.). *Neotropical birds: ecology and conservation*. Chicago: University of Chicago Press.

Pinho, J. B. 2005. *Riqueza de espécies, padrões de migração e biologia reprodutiva de aves em quatro ambientes florestais do Pantanal de Poconé, MT*. Ph.D. Thesis. Belo Horizonte: Universidade Federal de Minas Gerais.

Pinho, J. B.; Aragona, M.; Yoshihiro, K.; Hakamada, P. & Marini, M. Â. in press. Migration patterns and seasonal forest use by birds in the Brazilian Pantanal. *Bird Conservation International*.

Pinho, J. B.; Lopes, L. E.; Maldonado-Coelho, M.; Rubio, T. C. & Bernardon, B. 2009. Habitat associations and nests of Band-tailed Antbirds (*Hypocnemoides maculicauda*) in the Brazilian Pantanal. *Wilson Journal of Ornithology*, 121: 153–159.

Pinho, J. B.; Lopes, L. E.; Morais, D. H. & Fernandes, A. M. 2006. Life history of the Mato Grosso Antbird *Cercomacra melanaria* in the Brazilian Pantanal. *Ibis*, 148: 321–329.

Pinho, J. B. & Marini, M. Â. 2012. Using birds to set conservation priorities for Pantanal wetland forests, Brazil. *Bird Conservation International*, 22: 155–169.

Pinho, J. B. & Marini, M. Â. 2014. Birds' nesting parameters in four forest types in the Pantanal wetland. *Brazilian Journal of Biology*, 74: 890–898.

Pinho, J. B. & Nogueira, F. M. B. 2003. Hyacinth Macaw (*Anodorhynchus hyacinthinus*) reproduction in the northern Pantanal, Mato Grosso, Brazil. *Ornitología Neotropical*, 14: 29–38.

Pivatto, M. A. C; Donatelli, R. J. & Manço, D. G. 2008. Aves da Fazenda Santa Emília, Aquidauana, Mato Grosso do Sul. *Atualidades Ornitológicas*, 143: 33–37.

Pyle, P. 1997. *Identification guide to North American birds, part I, Columbidae to Ploceidae*. Bolinas: Slate Creek Press.

Ridgely, R. S. & Tudor, G. 1994. *The birds of South America, v. 2, the suboscine passerines*. Austin: University of Texas Press.

Ridgely, R. S. & Tudor, G. 2009. *Field guide to the songbirds of South America: the passerines*. Austin: University of Texas Press.

Rubio, T. C. & Pinho, J. B. 2008. Biologia reprodutiva de *Synallaxis albilora* (Aves: Furnariidae) no Pantanal de Poconé, Mato Grosso. *Papéis Avulsos de Zoologia*, 48: 181–197.

Signor, C. A. & Pinho, J. B. 2010. Aves, p. 137–154. *In*: Fernandes, I. M.; Signor, C. A. & Penha, J. (eds.). *Biodiversidade no Pantanal de Poconé*. Cuiabá: Centro de Pesquisa do Pantanal.

Signor, C. A. & Pinho, J. B. 2011. Spatial diversity patterns of birds in a vegetation mosaic of the Pantanal, Mato Grosso, Brazil. *Zoologia*, 28: 725–738.

Silva, C. J.; Wantzen, K. M.; Nunes-da-Cunha, C. & Machado, F. A. 2001. Biodiversity in the Pantanal wetland, Brazil, p. 187–215. *In*: Gopal, B.; Junk, W. J. & Davis, J. A. (eds.). *Biodiversity in wetlands: assessment, function and conservation, v. 2*. Leiden: Backhuys Publishers.

Silva, J. F. & Rúbio, T. C. 2007. *Combretum lanceolatum* como recurso alimentar para aves no Pantanal. *Revista Brasileira de Ornitologia*, 15: 459–460.

Silva, J. M. C. 1991. Sistemática e biogeografia da superespécie *Nystalus maculatus* (Piciformes: Bucconidae). *Ararajuba*, 2: 75–79.

Silva, J. M. C. 1996. Distribution of Amazonian and Atlantic birds in gallery forests of the Cerrado region, South America. *Ornitología Neotropical*, 7: 1–18.

Silva, J. M. C. & Bates, J. M. 2002. Biogeographic patterns and conservation in the South American Cerrado: a tropical savanna hotspot. *BioScience*, 52: 225–233.

Silva, J. S. V. & Abdon, M. M. 1998. Delimitação do Pantanal brasileiro e suas sub-regiões. *Pesquisa Agropecuária Brasileira*, 33: 1703–1711.

Snow, D. W. 1985. Systematics of the *Turdus fumigatus*/*hauxwelli* group of thrushes. *Bulletin of the British Ornithologists' Club*, 105: 30–37.

Tubelis, D. P. & Tomas, W. M. 2003. Bird species of the Pantanal wetland, Brazil. *Ararajuba*, 11: 5–37.

Ubaid, F. K. & Antas, P. T. Z. 2013. Novos registros de aves para a Reserva Particular do Patrimônio Natural SESC Pantanal, Barão de Melgaço, MT. *Ornithologia*, 5: 122–130.

Vasconcelos, M. F. & Hoffmann, D. 2006. Os bosques secos chiquitanos também são nossos! *Atualidades Ornitológicas*, 130: 10–11.

Vasconcelos, M. F.; Lopes, L. E.; Hoffmann, D.; Silveira, L. F & Schunck, F. 2008. New and noteworthy records of birds from the Pantanal, Chiquitano Dry Forest and Cerrado of south-western Brazil. *Bulletin of the British Ornithologists' Club*, 128: 57–67.

Vielliard, J. M. E. 1989. Uma nova espécie de *Glaucidium* (Aves, Strigidae) da Amazônia. *Revista Brasileira de Zoologia*, 6: 685–693.

Willis, E. O. 2003. Bird records in the southern Neotropics: on the need to critically check specimens, literature citations and field observations. *Ornitología Neotropical*, 14: 549–552.

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APPENDIX I

Bird species recorded in the Pirizal region, municipalities of Poconé and Nossa Senhora do Livramento, Pantanal of Poconé, Mato Grosso, Brazil. Specimens listed in the accession book, but not found on their respective collections on September 2015, are highlighted in italics. Accession numbers of all specimens collected are presented, as well as other evidentiary information, which was coded as: H – heard; P – photograph, V – visually observed; - no specimen available.

Taxon	English name	Specimens	Evidentiary information
ORDER RHEIFORMES			
Family Rheidae			
Rhea americana (Linnaeus, 1758)	Greater Rhea	-	H,V
ORDER TINAMIFORMES			
Family Tinamidae			
Crypturellus undulatus (Temminck, 1815)	Undulated Tinamou	DZUFMG 5058–5065	H,S,V
Crypturellus parvirostris (Wagler, 1827)	Small-billed Tinamou	UFMT 2795	H,V
Rhynchotus rufescens (Temminck, 1815)	Red-winged Tinamou	-	H,V
ORDER ANSERIFORMES			
Family Anhimidae			
Chauna torquata (Oken, 1816)	Southern Screamer	-	H,P,V
Family Anatidae			
Dendrocygna viduata (Linnaeus, 1766)	White-faced Whistling-duck	-	H,P,V
Dendrocygna autumnalis (Linnaeus, 1758)	Black-bellied Whistling-duck	UFMT 3428, 3457	H,V
Amazonetta brasiliensis (J.F. Gmelin, 1789)	Brazilian Teal	UFMT 3233, 3372	H,P,V
Cairina moschata (Linnaeus, 1758)	Muscovy Duck	-	P,V
ORDER GALLIFORMES			
Family Cracidae			
Penelope ochrogaster von Pelzeln, 1870	Chestnut-bellied Guan	UFMT 0247, 2866, 2869	H,P,V
Pipile cumanensis grayi (von Pelzeln, 1870)	Blue-throated Piping Guan	UFMT 2588	H,P,V
Ortalis canicollis (Wagler, 1830)	Chaco Chachalaca	DZUFMG 5098, 5099; UFMT 0246, 0263, 2597, 2867	H,P,V
Crax fasciolata von Spix, 1825	Bare-faced Curassow	UFMT 2221	H,P,V
ORDER COLUMBIFORMES			
Family Columbidae			
Patagioenas speciosa (J.F. Gmelin, 1789)	Scaled Pigeon	-	H,P,V
Patagioenas picazuro (Temminck, 1813)	Picazuro Pigeon	-	H,V
Patagioenas cayennensis (Bonnaterre, 1792)	Pale-vented Pigeon	-	H,P,V
Leptotila verreauxi Bonaparte, 1855	White-tipped Dove	DZUFMG 5041; UFMT 0182, 0243, *0282*, 0298, 3212, 3472	H,P,V
Leptotila rufaxilla (Richard & Bernard, 1792)	Gray-fronted Dove	-	H,V,
Columbina squammata (Lesson, 1831)	Scaled Dove	UFMT 3350	H,P,V
Columbina minuta (Linnaeus, 1766)	Plain-breasted Ground-dove	-	H,V
Columbina talpacoti (Temminck, 1810)	Ruddy Ground-dove	UFMT 0229, 0261	H,P,V
Columbina picui (Temminck, 1813)	Picui Ground-dove	-	H,V
Claravis pretiosa (Ferrari-Pérez, 1886)	Blue Ground-dove	-	V
Uropelia campestris (von Spix, 1825)	Long-tailed Ground-dove	DZUFMG 5149–5152	V
ORDER EURYPYGIFORMES			
Family Eurypygidae			
Eurypyga helias (Pallas, 1781)	Sunbittern	DZUFMG 5069; UFMT 0224	H,P,V

Taxon	English name	Specimens	Evidentiary information
ORDER CAPRIMULGIFORMES			
Family Nyctibiidae			
Nyctibius grandis (J.F. Gmelin, 1789)	Great Potoo	UFMT 2586	H,V
Nyctibius griseus (J.F. Gmelin, 1789)	Common Potoo	UFMT 3227	H,V
Family Caprimulgidae			
Chordeiles nacunda (Vieillot, 1817)	Nacunda Nighthawk	-	P,V
Chordeiles pusillus Gould, 1861	Least Nighthawk	-	H,V
Nyctiprogne leucopyga (von Spix, 1825)	Band-tailed Nighthawk	-	H,P,V
Nyctidromus albicollis (J.F. Gmelin, 1789)	Pauraque	UFMT *0765*, 3344	H,P,V
Setopagis parvula (Gould, 1837)	Little Nightjar	-	H,V
Hydropsalis torquata (J.F. Gmelin, 1789)	Scissor-tailed Nightjar	-	H,V
Antrostomus rufus (Boddaert, 1783)	Rufous Nightjar	-	H,V
Family Apodidae			
Chaetura meridionalis Hellmayr, 1907	Sick's Swift	-	H,V
Family Trochilidae			
Glaucis hirsutus (J.F. Gmelin, 1788)	Rufous-breasted Hermit	-	P,V
Phaethornis nattereri von Berlepsch, 1887	Cinnamon-throated Hermit	DZUFMG 5103; UFMT 3216	H,P,V
Phaethornis subochraceus Todd, 1915	Buff-belllied Hermit	-	V
Phaethornis pretrei (Lesson & Delattre, 1839)	Planalto Hermit	-	H,V
Polytmus guainumbi (Pallas, 1764)	White-tailed Goldenthroat	UFMT 0661, 3379	V
Chrysolampis mosquitus (Linnaeus, 1758)	Ruby-topaz Hummingbird	-	V
Anthracothorax nigricollis (Vieillot, 1817)	Black-throated Mango	UFMT 0273	V
Chlorostilbon lucidus (Shaw, 1812)	Glittering-bellied Emerald	-	H,V
Eupetomena macroura (J.F. Gmelin, 1788)	Swallow-tailed Hummingbird	-	H,V
Thalurania furcata (J.F. Gmelin, 1788)	Fork-tailed Woodnymph	UFMT 0371, 0372, 3342	P,V
Amazilia versicolor (Vieillot, 1818)	Versicolored Emerald	-	H,V
Amazilia fimbriata (J.F. Gmelin, 1788)	Glittering-throated Emerald	UFMT 0764, 3345, 3349, 3375	P,V
Hylocharis chrysura (Shaw, 1812)	Gilded Hummingbird	-	P,V
Heliomaster furcifer (Shaw, 1812)	Blue-tufted Starthroat	-	V
Calliphlox amethystina (Boddaert, 1783)	Amethyst Woodstar	-	V
ORDER CUCULIFORMES			
Family Cuculidae			
Crotophaga major J.F. Gmelin, 1788	Greater Ani	DZUFMG 5057	H,P,V
Crotophaga ani Linnaeus, 1758	Smooth-billed Ani	DZUFMG 5056; UFMT 0241, 0631, 3341, 3397	H,P,V
Guira guira (J.F. Gmelin, 1788)	Guira Cuckoo	UFMT 3337, 3404	H,P,V
Tapera naevia (Linnaeus, 1766)	Striped Cuckoo	-	H,V
Coccycua minuta (Vieillot, 1817)	Little Cuckoo	-	V
Piaya cayana (Linnaeus, 1766)	Squirrel Cuckoo	-	H,P,V
Coccyzus americanus (Linnaeus, 1758)	Yellow-billed Cuckoo	-	V
Coccyzus melacoryphus Vieillot, 1817	Dark-billed Cuckoo	-	V
ORDER GRUIFORMES			
Family Rallidae			
Aramides cajaneus (Statius Muller, 1776)	Gray-necked Wood-rail	UFMT 3335, 3358	H,P,V
Neocrex erythrops (P.L. Sclater, 1867)	Paint-billed Crake	-	V
Porzana albicollis (Vieillot, 1819)	Ash-throated Crake	-	H,V

Taxon	English name	Specimens	Evidentiary information
Porphyrio martinicus (Linnaeus, 1766)	Purple Gallinule	-	V
Porphyrio flavirostris (J.F. Gmelin, 1789)	Azure Gallinule	-	V
Family Heliornithidae			
Heliornis fulica (Boddaert, 1783)	Sungrebe	-	V
Family Aramidae			
Aramus guarauna (Linnaeus, 1766)	Limpkin	-	H,P,V
ORDER PELECANIFORMES			
Family Ciconiidae			
Mycteria americana Linnaeus, 1758	Wood Stork	-	P,V
Ciconia maguari (J.F. Gmelin, 1789)	Maguari Stork	-	P,V
Jabiru mycteria (M.H.C. Lichtenstein, 1819)	Jabiru	-	P,V
Family Ardeidae			
Tigrisoma lineatum (Boddaert, 1783)	Rufescent Tiger-heron	DZUFMG 5146; UFMT 3370, 3429, 3432	H,P,V
Cochlearius cochlearius (Linnaeus, 1766)	Boat-billed Heron	-	V
Zebrilus undulatus (J.F. Gmelin, 1789)	Zigzag Heron	-	V
Ixobrychus exilis (J.F. Gmelin, 1789)	Least Bittern	DZUFMG 5089	V
Nycticorax nycticorax (Linnaeus, 1758)	Black-crowned Night-heron	-	V
Butorides striata (Linnaeus, 1758)	Striated Heron	DZUFMG 5042, UFMT 3485	H,P,V
Bubulcus ibis (Linnaeus, 1758)	Cattle Egret	-	P,V
Ardea cocoi Linnaeus, 1766	Cocoi Heron	-	P,V
Ardea alba Linnaeus, 1758	Great Egret	-	P,V
Syrigma sibilatrix (Temminck, 1824)	Whistling Heron	UFMT 3423, 3459	H,P,V
Pilherodius pileatus (Boddaert, 1783)	Capped Heron	-	P,V
Egretta caerulea (Linnaeus, 1758)	Little Blue Heron	UFMT 2154	P,V
Egretta thula (Molina, 1782)	Snowy Egret	-	P,V
Family Threskiornithidae			
Platalea ajaja Linnaeus, 1758	Roseate Spoonbill	DZUFMG 5111; UFMT 2590	P,V
Theristicus caerulescens (Vieillot, 1817)	Plumbeous Ibis	UFMT 3456	H,P,V
Theristicus caudatus (Boddaert, 1783)	Buff-necked Ibis	DZUFMG 5144	H,P,V
Mesembrinibis cayennensis (J.F. Gmelin, 1789)	Green Ibis	-	H,P,V
Phimosus infuscatus (M.H.C. Lichtenstein, 1823)	Bare-faced Ibis	UFMT 3421	P,V
Family Phalacrocoracidae			
Phalacrocorax brasilianus (J.F. Gmelin, 1789)	Neotropic Cormorant	-	V
Family Anhingidae			
Anhinga anhinga (Linnaeus, 1766)	Anhinga	-	V
ORDER CHARADRIIFORMES			
Family Recurvirostridae		-	
Himantopus himantopus melanurus Vieillot, 1817	White-backed Stilt	UFMT 0364	P,V
Family Charadriidae			
Charadrius collaris Vieillot, 1818	Collared Plover	DZUFMG 5053	V
Vanellus chilensis (Molina, 1782)	Southern Lapwing	UFMT 2578, 3128, 3401	H,V
Vanellus cayanus (Latham, 1790)	Pied Lapwing	UFMT 3438	P,V
Family Jacanidae			
Jacana jacana (Linnaeus, 1766)	Wattled Jacana	UFMT 0202, 3213, 3217, 3359	H,P,V

Taxon	English name	Specimens	Evidentiary information
Family Scolopacidae			
Calidris melanotos (Vieillot, 1819)	Pectoral Sandpiper	-	V
Gallinago paraguaiae (Vieillot, 1816)	South American Snipe	-	H,V
Actitis macularius (Linnaeus, 1766)	Spotted Sandpiper	-	V
Tringa solitaria A. Wilson, 1813	Solitary Sandpiper	-	P,V
Tringa flavipes (J.F. Gmelin, 1789)	Lesser Yellowlegs	-	V
Family Laridae			
Rynchops niger Linnaeus, 1758	Black Skimmer	-	P,V
Sternula superciliaris (Vieillot, 1819)	Yellow-billed Tern	-	P,V
Phaetusa simplex (J.F. Gmelin, 1789)	Large-billed Tern	-	H,P,V
ORDER ACCIPITRIFORMES			
Family Cathartidae			
Cathartes aura (Linnaeus, 1758)	Turkey Vulture	-	V
Cathartes burrovianus Cassin, 1845	Lesser Yellow-headed Vulture	-	V
Coragyps atratus (Bechstein, 1793)	Black Vulture	-	V
Sarcoramphus papa (Linnaeus, 1758)	King Vulture	-	V
Family Pandionidae			
Pandion haliaetus (Linnaeus, 1758)	Osprey	-	V
Family Accipitridae			
Elanus leucurus (Vieillot, 1818)	White-tailed Kite	-	V
Gampsonyx swainsonii Vigors, 1825	Pearl Kite	-	V
Elanoides forficatus (Linnaeus, 1758)	Swallow-tailed Kite	UFMT 2595	V
Spizaetus melanoleucus (Vieillot, 1816)	Black-and-white Hawk-eagle	-	H,V
Accipiter striatus Vieillot, 1808	Sharp-shinned Hawk	-	V
Accipiter bicolor (Vieillot, 1817)	Bicolored Hawk	-	H,V
Busarellus nigricollis (Latham, 1790)	Black-collared Hawk	UFMT 0248, 0250, 0267	H,P,V
Geranospiza caerulescens (Vieillot, 1817)	Crane Hawk	UFMT 3232	V
Ictinia mississippiensis (A. Wilson, 1811)	Mississippi Kite	-	V
Ictinia plumbea (J.F. Gmelin, 1788)	Plumbeous Kite	DZUFMG 5087; UFMT 0245, 2160	H,V
Rostrhamus sociabilis (Vieillot, 1817)	Snail Kite	UFMT 3413, 3419	H,V
Rupornis magnirostris (J.F. Gmelin, 1788)	Roadside Hawk	DZUFMG 5119; UFMT 0216, 0481, 0876, 2579, 2583, 2879, 3274, 3347, 3368, 3402	H,P,V
Buteogallus meridionalis (Latham, 1790)	Savanna Hawk	UFMT 2584, 2589, 2596, 2875, 3382, 3415	H,P,V
Buteogallus urubitinga (J.F. Gmelin, 1788)	Great Black-hawk	UFMT 2591	H,P,V
Geranoaetus albicaudatus (Vieillot, 1816)	White-tailed Hawk	-	V
Buteo nitidus (Latham, 1790)	Gray Hawk	UFMT 2872	H,V
Buteo albonotatus Kaup, 1847	Zone-tailed Hawk	-	V
ORDER STRIGIFORMES			
Family Tytonidae			
Tyto alba (Scopoli, 1769)	Barn Owl	-	H,V
Family Strigidae			
Glaucidium brasilianum (J.F. Gmelin, 1788)	Ferruginous Pygmy-owl	DZUFMG 5031, 5074; UFMT 0299	H,V
Athene cunicularia (Molina, 1782)	Burrowing Owl	-	H,V

Taxon	English name	Specimens	Evidentiary information
Megascops choliba (Vieillot, 1817)	Tropical Screech-owl	UFMT 0768, 0798	H,V
Pulsatrix perspicillata (Latham, 1790)	Spectacled Owl	-	H,V
Bubo virginianus (J.F. Gmelin, 1788)	Great Horned Owl	UFMT 2146	H,V
Ciccaba huhula (Daudin, 1800)	Black-banded Owl	DZUFMG 5030	V
ORDER TROGONIFORMES			
Family Trogonidae			
Trogon melanurus Swainson, 1838	Black-tailed Trogon	UFMT 0634	H,V
Trogon curucui Linnaeus, 1766	Blue-crowned Trogon	DZUFMG 5040; UFMT 0635	H,V
ORDER PICIFORMES			
Family Galbulidae			
Galbula ruficauda Cuvier, 1816	Rufous-tailed Jacamar	UFMT 0288, 0289, 0293	H,P,V
Family Bucconidae			
Nystalus chacuru (Vieillot, 1816)	White-eared Puffbird	-	H,V
Nystalus maculatus (J.F. Gmelin, 1788)	Spot-backed Puffbird	-	H,V
Monasa nigrifrons (von Spix, 1824)	Black-fronted Nunbird	CAF 0205; DZUFMG 5093; UFMT 3186, 3187, 3338	H,V
Chelidoptera tenebrosa (Pallas, 1782)	Swallow-wing	-	V
Family Picidae			
Picumnus albosquamatus d'Orbigny, 1840	White-wedged Piculet	DZUFMG 5107-5110; UFMT 0904	H,V
Dryocopus lineatus (Linnaeus, 1766)	Lineated Woodpecker	UFMT 3416	H,P,V
Celeus flavus (Statius Muller, 1776)	Cream-colored Woodpecker	-	P,V
Celeus lugubris (Malherbe, 1851)	Pale-crested Woodpecker	DZUFMG 5049, 5050; UFMT 0271, 3363	H,P,V
Piculus chrysochloros (Vieillot, 1818)	Golden-green Woodpecker	-	V
Colaptes melanochloros (J.F. Gmelin, 1788)	Green-barred Woodpecker	UFMT 3210	H,P,V
Colaptes campestris (Vieillot, 1818)	Campo Flicker	DZUFMG 5054; UFMT 0757, 2587	H,V
Campephilus melanoleucos (J.F. Gmelin, 1788)	Crimson-crested Woodpecker	UFMT 0184, 0682, 0683	H,V
Melanerpes candidus (Otto, 1796)	White Woodpecker	UFMT 3433, 3441	H,V
Veniliornis mixtus (Boddaert, 1783)	Checkered Woodpecker	DZUFMG 5106; UFMT 0497	V
Veniliornis passerinus (Linnaeus, 1766)	Little Woodpecker	DZUFMG 5153; UFMT 0214, 0486, 3425	H,V
Family Ramphastidae			
Ramphastos toco Statius Muller, 1776	Toco Toucan	UFMT 0212, 0503, 2580	H,P,V
Pteroglossus castanotis Gould, 1834	Chestnut-eared Aracari	DZUFMG 5035; UFMT 2014, 3277, 3405	H,P,V
ORDER CORACIIFORMES			
Family Momotidae			
Momotus momota (Linnaeus, 1766)	Blue-crowned Motmot	-	H,P,V
Family Alcedinidae			
Megaceryle torquata (Linnaeus, 1766)	Ringed Kingfisher	UFMT 2581	H,P,V
Chloroceryle amazona (Latham, 1790)	Amazon Kingfisher	-	H,P,V
Chloroceryle aenea (Pallas, 1764)	American Pygmy Kingfisher	UFMT 0213, 0281, 0691, 0770, 0964, 3262	P,V
Chloroceryle americana (J.F. Gmelin, 1788)	Green Kingfisher	UFMT 3197, 3376	H,P,V
Chloroceryle inda (Linnaeus, 1766)	Green-and-rufous Kingfisher	UFMT 0287, 0633	P,V

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ORDER CARIAMIFORMES			
Family Cariamidae			
Cariama cristata (Linnaeus, 1766)	Red-legged Seriema	-	H,P,V
ORDER FALCONIFORMES			
Family Falconidae			
Herpetotheres cachinnans (Linnaeus, 1758)	Laughing Falcon	-	H,P,V
Micrastur semitorquatus (Vieillot, 1817)	Collared Forest-falcon	UFMT 0314	H,V
Caracara plancus (J.F. Miller, 1777)	Southern Caracara	-	H,P,V
Milvago chimachima (Vieillot, 1816)	Yellow-headed Caracara	-	H,V
Falco sparverius Linnaeus, 1758	American Kestrel	-	H,V
Falco rufigularis Daudin, 1800	Bat Falcon	-	V
Falco femoralis Temminck, 1822	Aplomado Falcon	UFMT 3406	H,V
ORDER PSITTACIFORMES			
Family Psittacidae			
Myiopsitta monachus (Boddaert, 1783)	Monk Parakeet	-	H,V
Brotogeris chiriri (Vieillot, 1818)	Yellow-chevroned Parakeet	UFMT 0183	H,P,V
Amazona aestiva (Linnaeus, 1758)	Blue-fronted Parrot	UFMT 3399, 3403	H,P,V
Amazona amazonica (Linnaeus, 1766)	Orange-winged Parrot	-	H,V
Anodorhynchus hyacinthinus (Latham, 1790)	Hyacinth Macaw	-	H,P,V
Eupsittula aurea (J.F. Gmelin, 1788)	Nanday Parakeet	UFMT 0891	H,P,V
Aratinga nenday (Vieillot, 1823)	Peach-fronted Parakeet	-	H,V
Primolius auricollis (Cassin, 1853)	Yellow-collared Macaw	CAF 0222	H,P,V
Primolius maracana (Vieillot, 1816)	Blue-winged Macaw	-	H,V
Ara ararauna (Linnaeus, 1758)	Blue-and-yellow Macaw	-	H,V
Ara chloropterus G.R. Gray, 1859	Red-and-green Macaw	-	H,V
Diopsittaca nobilis (Linnaeus, 1758)	Red-shouldered Macaw	DZUFMG 5068; UFMT 0501, 0769, 3238, 3276, 3295, 3309, 3333	H,P,V
Psittacara acuticaudatus (Vieillot, 1818)	Blue-crowned Parakeet	CAF 0224; UFMT 3418, 3422	H,V
Psittacara leucophthalmus (Statius Muller, 1776)	White-eyed Parakeet	-	H,V
ORDER PASSERIFORMES			
Family Pipridae			
Neopelma pallescens (Lafresnaye, 1853)	Pale-bellied Tyrant-manakin	DZUFMG 5097; UFMT 0196, 0491, 0639	H,P,V
Pipra fasciicauda Hellmayr, 1906	Band-tailed Manakin	UFMT 0258, 0651	P,V
Antilophia galeata (M.H.C. Lichtenstein, 1823)	Helmeted Manakin	UFMT 0640	H,P,V
Family Onychorhynchidae			
Myiobius barbatus (J.F. Gmelin, 1789)	Whiskered Flycatcher	-	V
Family Tityridae			
Tityra inquisitor (M.H.C. Lichtenstein, 1823)	Black-crowned Tityra	-	V
Tityra cayana (Linnaeus, 1766)	Black-tailed Tityra	UFMT 0901	H,V
Tityra semifasciata (von Spix, 1825)	Masked Tityra	-	V
Xenopsaris albinucha (Burmeister, 1869)	White-naped Xenopsaris	UFMT 0217, 0227	H,P,V
Pachyramphus viridis (Vieillot, 1816)	Green-backed Becard	UFMT 0383, 0752	H,V
Pachyramphus validus (M.H.C. Lichtenstein, 1823)	Crested Becard	UFMT 0269	H,V

Taxon	English name	Specimens	Evidentiary information
Pachyramphus marginatus (M.H.C. Lichtenstein, 1823)	Black-capped Becard	-	H,V
Pachyramphus polychopterus (Vieillot, 1818)	White-winged Becard	UFMT 0464, 0886	H,V
Family Platyrinchidae			
Platyrinchus mystaceus Vieillot, 1818	White-throated Spadebill	-	H,V
Family Pipromorphidae			
Leptopogon amaurocephalus von Tschudi, 1846	Sepia-capped Flycatcher	-	H,P,V
Tolmomyias sulphurescens (von Spix, 1825)	Yellow-olive Flycatcher	UFMT 0206, 0638	H,V
Myiornis ecaudatus (d'Orbigny & Lafresnaye, 1837)	Short-tailed Pygmy-tyrant	-	V
Hemitriccus striaticollis (Lafresnaye, 1853)	Stripe-necked Tody-tyrant	UFMT 0475	H,V
Hemitriccus margaritaceiventer (d'Orbigny &Lafresnaye, 1837)	Pearly-vented Tody-tyrant	UFMT 0474, *0585*, 3371, 3374	H,V
Poecilotriccus latirostris (von Pelzeln, 1868)	Rusty-fronted Tody-flycatcher	DZUFMG 5147; UFMT 0472, *0487, 0490, 0832,* 3311	H,P,V
Todirostrum cinereum (Linnaeus, 1766)	Common Tody-flycatcher	UFMT *0480*	H,P,V
Family Tyrannidae			
Inezia inornata (Salvadori, 1897)	Plain Tyrannulet	DZUFMG 5088; UFMT 0470, 3312	P,V
Euscarthmus meloryphus zu Wied, 1831	Tawny-crowned Pygmy-tyrant	-	H,V
Camptostoma obsoletum (Temminck, 1824)	Southern Beardless-tyrannulet	UFMT 0187	H,V
Elaenia flavogaster (Thunberg, 1822)	Yellow-bellied Elaenia	-	H,V
Elaenia parvirostris von Pelzeln, 1868	Small-billed Elaenia	-	V
Elaenia spectabilis von Pelzeln, 1868	Large Elaenia	UFMT 0264, 0365, 0647	H,V
Elaenia chiriquensis Lawrence, 1865	Lesser Elaenia	UFMT 0205	V
Elaenia albiceps chilensis Hellmayr, 1927	Chilean Elaenia	UFMT 0342, 0494, 0495, 0636	V
Myiopagis gaimardii (d'Orbigny, 1840)	Forest Elaenia	DZUFMG 5095; UFMT 0645	H,V
Myiopagis viridicata (Vieillot, 1817)	Greenish Elaenia	DZUFMG 5096; UFMT 0646	H,V
Suiriri suiriri affinis (Burmeister, 1856)	Suiriri Flycatcher	DZUFMG 5126; UFMT *0498*	H,V
Capsiempis flaveola (M.H.C. Lichtenstein, 1823)	Yellow Tyrannulet	-	H,P,V
Phaeomyias murina (von Spix, 1825)	Mouse-colored Tyrannulet	-	H,V
Attila phoenicurus von Pelzeln, 1868	Rufous-tailed Attila	-	V
Attila bolivianus Lafresnaye, 1848	Dull-capped Attila	DZUFMG 5023, 5024	H,P,V
Legatus leucophaius (Vieillot, 1818)	Piratic Flycatcher	DZUFMG 5090	H,V
Pitangus sulphuratus (Linnaeus, 1766)	Great Kiskadee	UFMT 0199, 0208, 0209, 3353, 3365, 3411, 3417, 3435, 3468	H,V
Pitangus lictor (M.H.C. Lichtenstein, 1823)	Lesser Kiskadee	DZUFMG 5104, 5105	H,V
Machetornis rixosa (Vieillot, 1819)	Cattle Tyrant	UFMT *0773*, 3426, 3431	H,P,V
Megarynchus pitangua (Linnaeus, 1766)	Boat-billed Flycatcher	-	H,V
Myiodynastes maculatus (Statius Muller, 1776)	Streaked Flycatcher	-	H,V
Myiozetetes cayanensis (Linnaeus, 1766)	Rusty-margined Flycatcher	UFMT 0754, 3395	H,V
Tyrannus albogularis Burmeister, 1856	White-throated Kingbird	-	H,P,V
Tyrannus melancholicus Vieillot, 1819	Tropical Kingbird	DZUFMG 5148	H,V
Tyrannus savana Daudin, 1802	Fork-tailed Flycatcher	-	H,P,V
Casiornis rufus (Vieillot, 1816)	Rufous Casiornis	DZUFMG 5047, 5048; UFMT 0774	H,P,V
Myiarchus swainsoni Cabanis & Heine, 1859	Swainson's Flycatcher	UFMT 0240, 3400	H,V

Taxon	English name	Specimens	Evidentiary information
Myiarchus ferox (J.F. Gmelin, 1789)	Short-crested Flycatcher	DZUFMG 5094; UFMT 0237, 0479, 0499, 3398	H,V
Myiarchus tyrannulus (Statius Muller, 1776)	Brown-crested Flycatcher	UFMT 0272	H,V
Sublegatus modestus (zu Wied, 1831)	Southern Scrub-flycatcher	DZUFMG 5125; UFMT 0463	H,V
Pyrocephalus rubinus (Boddaert, 1783)	Vermilion Flycatcher	UFMT 2582, 2585, 3320	P,V
Fluvicola albiventer (von Spix, 1825)	Black-backed Water-tyrant	DZUFMG 5070; UFMT 0188	H,V
Arundinicola leucocephala (Linnaeus, 1764)	White-headed Marsh-tyrant	UFMT 3351	H,V
Xolmis cinereus (Vieillot, 1816)	Gray Monjita	-	H,P,V
Xolmis velatus (M.H.C. Lichtenstein, 1823)	White-rumped Monjita	UFMT *0577*, 0578, 0579, 0658	H,P,V
Xolmis irupero (Vieillot, 1823)	White Monjita	-	P,V
Cnemotriccus fuscatus (zu Wied, 1831)	Fuscous Flycatcher	UFMT 0178, 0270, 0637	H,P,V
Lathrotriccus euleri (Cabani, 1868)	Euler's Flycatcher	UFMT 3343	H,V
Empidonax alnorum Brewster, 1856	Alder Flycatcher	UFMT 0644	V
Contopus cinereus (von Spix, 1825)	Tropical Peewee	-	V
Family Thamnophilidae			
Formicivora grisea (Boddaert, 1783)	White-fringed Antwren	-	P,V
Formicivora melanogaster von Pelzeln, 1868	Black-bellied Antwren	UFMT 0195, 0652	V
Formicivora rufa (zu Wied, 1831)	Rusty-backed Antwren	DZUFMG 5071	H,V
Dysithamnus mentalis (Temminck, 1823)	Plain Antvireo	UFMT 0305, 0306	H,V
Herpsilochmus longirostris von Pelzeln, 1868	Large-billed Antwren	DZUFMG 5032, 5033, 5075, 5076; UFMT 0484, 0485, 0492	H,V
Taraba major (Vieillot, 1816)	Great Antshrike	DZUFMG 5128, 5129; UFMT 0276, 0301, 0771, 3427	H,P,V
Thamnophilus doliatus (Linnaeus, 1764)	Barred Antshrike	DZUFMG 5130-5143; UFMT 0467, 0751	H,P,V
Thamnophilus pelzelni Hellmayr, 1924	Planalto Slaty-antshrike	UFMT *0204*, 0230, 0366, *0657*, 3356, 3806	H,P,V
Cercomacra melanaria (Ménétries, 1835)	Mato Grosso Antbird	CAF 0184; DZUFMG 5026-5029, 5051, 5052; UFMT 0226, 0641	H,P,V
Hypocnemoides maculicauda (von Pelzeln, 1868)	Band-tailed Antbird	DZUFMG 5078; UFMT 0194, 0303, 0304	H,P,V
Pyriglena leuconota maura (Ménétries, 1835)	White-backed Fire-eye	-	H,P,V
Family Dendrocolaptidae			
Sittasomus griseicapillus (Vieillot, 1818)	Olivaceous Woodcreeper	DZUFMG 5123	H,P,V
Xiphocolaptes major (Vieillot, 1818)	Great Rufous Woodcreeper	DZUFMG 5154, 5155; UFMT 0185	H,P,V
Xiphorhynchus guttatus (M.H.C. Lichtenstein, 1820)	Buff-throated Woodcreeper	-	H,P,V
Dendroplex picus (J.F. Gmelin, 1788)	Straight-billed Woodcreeper	DZUFMG 5156; UFMT 0253, 3188	H,P,V
Campylorhamphus trochilirostris (M.H.C. Lichtenstein,1820)	Red-billed Scythebill	UFMT 0274	H,V
Lepidocolaptes angustirostris (Vieillot, 1818)	Narrow-billed Woodcreeper	DZUFMG 5091	H,P,V
Family Furnariidae			
Xenops rutilus Temminck, 1821	Streaked Xenops	-	H,V
Furnarius leucopus Swainson, 1838	Pale-legged Hornero	DZUFMG 5072; UFMT 0219, 0256, 0284, 0302	H,P,V
Furnarius rufus (J.F. Gmelin, 1788)	Rufous Hornero	DZUFMG 5073; UFMT 0186, 0200	H,P,V

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Phacellodomus rufifrons (zu Wied, 1821)	Rufous-fronted Thornbird	-	H,V
Phacellodomus ruber (Vieillot, 1817)	Greater Thornbird	UFMT 0476, 3218	H,V
Cranioleuca vulpina (von Pelzeln, 1856)	Rusty-backed Spinetail	DZUFMG 5055; UFMT 0285, 0374, 3222	H,V
Pseudoseisura unirufa (d'Orbigny & Lafresnaye,1838)	Grey-crested Cacholote	CAF 0223; DZUFMG 5118	H,P,V
Schoeniophylax phryganophilus (Vieillot, 1817)	Chotoy Spinetail	-	H,V
Certhiaxis cinnamomeus (J.F. Gmelin, 1788)	Yellow-chinned Spinetail	UFMT 0373	H,P,V
Synallaxis scutata P.L. Sclater, 1859	Ochre-cheeked Spinetail	-	H,V
Synallaxis albilora von Pelzeln, 1856	White-lored Spinetail	DZUFMG 5037, 5127	H,P,V
Synallaxis hypospodia P.L. Sclater, 1874	Cinereous-breasted Spinetail	-	H,V
Synallaxis frontalis von Pelzeln, 1859	Sooty-fronted Spinetail	UFMT 0203	H,V
Family Vireonidae			
Cyclarhis gujanensis (J.F. Gmelin, 1789)	Rufous-browed Peppershrike	UFMT 0830	H,V
Vireo olivaceus (Linnaeus, 1766)	Red-eyed Vireo	UMT 0233, 0483	H,P,V
Hylophilus pectoralis P.L. Sclater, 1866	Ashy-headed Greenlet	DZUFMG 5077; UFMT 3224	H,P,V
Family Corvidae			
Cyanocorax cyanomelas (Vieillot, 1818)	Purplish Jay	DZUFMG 5066; UFMT 0489, 0502, 0775, 3340, 3396, 3407, 3424	H,P,V
Family Motacillidae			
Anthus lutescens Pucheran, 1855	Yellowish Pipit	UFMT 0197	H,V
Family Fringillidae			
Euphonia chlorotica (Linnaeus, 1766)	Purple-throated Euphonia	-	H,P,V
Family Passerelidae			
Arremon flavirostris Swainson, 1838	Saffron-billed Sparrow	-	H,V
Zonotrichia capensis (Statius Muller, 1776)	Rufous-collared Sparrow	-	H,V
Ammodramus humeralis (Bosc, 1792)	Grassland Sparrow	-	H,V
Family Parulidae			
Setophaga pitiayumi (Vieillot, 1817)	Tropical Parula	UFMT 0471	H,V
Basileuterus culicivorus hypoleucus Bonaparte, 1850	White-bellied Warbler	UFMT 0478	H,V
Myiothlypis leucophrys (von Pelzeln, 1868)	White-striped Warbler	UFMT 0236	V
Myiothlypis flaveola S.F. Baird, 1865	Flavescent Warbler	-	H,P,V
Family Icteridae			
Dolichonyx oryzivorus (Linnaeus, 1758)	Bobolink	-	P,V
Leistes superciliaris (Bonaparte, 1850)	White-browed Blackbird	-	V
Psarocolius decumanus (Pallas, 1769)	Crested Oropendola	UFMT 0843, 3360, 3367	H,P,V
Procacicus solitarius (Vieillot, 1816)	Solitary Cacique	DZUFMG 5043	H,P,V
Cacicus cela (Linnaeus, 1758)	Yellow-rumped Cacique	DZUFMG 5025; UFMT 3361, 3362	H,P,V
Icterus croconotus (Wagler, 1829)	Orange-backed Troupial	DZUFMG 5086; UFMT 0504, 3215, 3449	H,P,V
Icterus pyrrhopterus (Vieillot, 1819)	Epaulet Oriole	DZUFMG 5034, 5079-5085	H,V
Agelaioides badius (Vieillot, 1819)	Bay-winged Cowbird	CAF 0180; DZUFMG 5092	H,P,V
Molothrus oryzivorus (J.F. Gmelin, 1788)	Giant Cowbird	CAF 0204	H,P,V
Molothrus bonariensis (J.F. Gmelin, 1789)	Shiny Cowbird	-	H,P,V
Gnorimopsar chopi (Vieillot, 1819)	Chopi Blackbird	-	H,P,V

Taxon	English name	Specimens	Evidentiary information
Agelasticus cyanopus (Vieillot, 1819)	Unicolored Blackbird	UFMT 0283, 0286, 0294, 0295, 0496, 3211	H,V
Chrysomus ruficapillus (Vieillot, 1819)	Chestnut-capped Blackbird	-	H,V
Family Thraupidae			
Nemosia pileata (Boddaert, 1783)	Hooded Tanager	-	H,V
Conirostrum speciosum (Temminck, 1824)	Chestnut-vented Conebill	-	H,V
Sicalis flaveola (Linnaeus, 1766)	Saffron Finch	DZUFMG 5122; UFMT 0300, 3377, 3378, 3380, 3481	H,P,V
Volatinia jacarina (Linnaeus, 1766)	Blue-black Grassquit	UFMT 0225, 0231, 0656	H,P,V
Tachyphonus rufus (Boddaert, 1783)	White-lined Tanager	DZUFMG 5038	H,P,V
Eucometis penicillata (von Spix, 1825)	Gray-headed Tanager	-	H,P,V
Coryphospingus cucullatus (Statius Muller, 1776)	Red-crested Finch	-	H,P,V
Ramphocelus carbo (Pallas, 1764)	Silver-beaked Tanager	DZUFMG 5036; UFMT 0223, 0368, 0369, 0469, 0500, 3408	H,P,V
Sporophila lineola (Linnaeus, 1758)	Lined Seedeater	-	H,V
Sporophila leucoptera (Vieillot, 1817)	White-bellied Seedeater	-	H,V
Sporophila bouvreuil (Statius Muller, 1776)	Capped Seedeater	-	H,V
Sporophila angolensis (Linnaeus, 1766)	Chestnut-bellied Seed-finch	DZUFMG 5124	H,P,V
Sporophila caerulescens (Vieillot, 1823)	Double-collared Seedeater	-	H,V
Sporophila plumbea (zu Wied, 1830)	Plumbeous Seedeater	-	H,V
Sporophila collaris (Boddaert, 1783)	Rusty-collared Seedeater	CAF 0229; UFMT 0218, 0222, 0232, 0235, 0275, 0937, 3214	H,V
Saltatricula atricollis (Vieillot, 1817)	Black-throated Saltator	DZUFMG 5120	H,P,V
Saltator coerulescens Vieillot, 1817	Grayish Saltator	DZUFMG 5121; UMT 0228, 0262, 2144	H,P,V
Saltator similis d'Orbigny & Lafresnaye, 1837	Green-winged Saltator	UFMT *0766*	H,P,V
Emberizoides herbicola (Vieillot, 1817)	Wedge-tailed Grass-finch	-	H,V
Thlypopsis sordida (d'Orbigny & Lafresnaye, 1837)	Orange-headed Tanager	UFMT 0493	H,V
Cypsnagra hirundinacea (Lesson, 1831)	White-rumped Tanager	DZUFMG 5067; UFMT 0477	H,V
Coereba flaveola (Linnaeus, 1758)	Bananaquit	UFMT *0807*	H,P,V
Paroaria coronata (J.F. Miller, 1776)	Red-crested Cardinal	CAF 0213; UFMT 3198	H,V
Paroaria capitata (d'Orbigny & Lafresnaye, 1837)	Yellow-billed Cardinal	CAF 0212; DZUFMG 5100, 5101; UFMT 0254, 0260, 0297, 0482	H,P,V
Pipraeidea melanonota (Vieillot, 1819)	Fawn-breasted Tanager	-	H,V
Tangara sayaca (Linnaeus, 1766)	Sayaca Tanager	UFMT 0221, 0234, 3420, 3430	H,P,V
Tangara palmarum (zu Wied, 1823)	Palm Tanager	DZUFMG 5145; UFMT 0257, 0772	H,P,V
Family Donacobiidae			
Donacobius atricapilla (Linnaeus, 1766)	Black-capped Donacobius	UFMT 0244, 0291	H,P,V
Family Hirundinidae			
Petrochelidon pyrrhonota (Vieillot, 1817)	Cliff Swallow	DZUFMG 5102	V
Hirundo rustica Linnaeus, 1758	Barn Swallow	UFMT 0473	V
Tachycineta albiventer (Boddaert, 1783)	White-winged Swallow	-	V
Tachycineta leucorrhoa (Vieillot, 1817)	White-rumped Swallow	-	P,V
Riparia riparia (Linnaeus, 1758)	Bank Swallow	-	P,V
Progne tapera (Vieillot, 1817)	Brown-chested Martin	UFMT 0328	H,P,V
Progne subis (Linnaeus, 1758)	Purple Martin	-	V

Taxon	English name	Specimens	Evidentiary information
Progne chalybea (J.F. Gmelin, 1789)	Grey-breasted Martin	-	H,V
Stelgidopteryx ruficollis (Vieillot, 1817)	Southern Rough-winged Swallow	-	H,P,V
Family Troglodytidae			
Troglodytes aedon Vieillot, 1809	Southern House-wren	-	H,V
Campylorhynchus turdinus (zu Wied, 1831)	Thrush-like Wren	CAF 0183; DZUFMG 5044-5046; UFMT 3220, 3409, 3410	H,P,V
Pheugopedius genibarbis (Swainson, 1838)	Moustached Wren	DZUFMG 5039; UFMT 0654	H,P,V
Cantorchilus leucotis (Lafresnaye, 1845)	Buff-breasted Wren	UFMT 0175, 0268, 0292, 0632, 0650	H,P,V
Family Polioptilidae			
Polioptila dumicola (Vieillot, 1817)	Masked Gnatcatcher	DZUFMG 5112-5117; UFMT 3321	H,P,V
Family Mimidae			
Mimus saturninus (M.H.C. Lichtenstein, 1823)	Chalk-browed Mockingbird	UFMT 2159, 3332	H,P,V
Family Turdidae			
Catharus fuscescens (Stephens, 1817)	Veery	UFMT 0201	V
Turdus leucomelas Vieillot, 1818	Pale-breasted Thrush	UFMT 3246	H,P,V
Turdus fumigatus M.H.C. Lichtenstein, 1823	Cocoa Thrush	UFMT 3475	V
Turdus albicollis Vieillot, 1818	White-necked Trush	UFMT 3334	V
Turdus rufiventris Vieillot, 1818	Rufous-bellied Thrush	UFMT 3484	H,V
Turdus amaurochalinus Cabanis, 1851	Creamy-bellied Thrush	UFMT 3223	H,V